

AUTHORS INDEX.

A	PAGE	E	PAGE		
Anderson, A., on Gas-filled Lamps with Opal Glass Bulbs	230	Eastman, R. O., on A Survey of Industrial Lighting in Fifteen States	131		
Armitage, R., on Lighting Conditions in Mines	84	Elvy, J. C., on Portable Cinema Outfits	185		
B					
Baker, Miss F. E., on Colour-Matching Appliances	43	Elworthy, H. S., on Lighting Conditions in Mines, with Special Reference to Miners' Eyesight	80, 216		
BARBER, CAPT. J. W., on RECENT DEVELOPMENTS IN PORTABLE CINEMA OUTFITS	179	Elyard Brown, D., on Motor Car Headlights	122		
Bawtree, A. E., on a Colorimeter	43	F			
Benford, F. A., on Testing Coefficients of Diffuse Reflection	214	Fletcher, G. K., on The Artificial Lighting of Churches	216		
Berry, Sir Geo. A., on Lighting Conditions in Mines, and Miners' Eyesight	97	Fudge, E., on Lighting Conditions in Mines	85		
Bishop Harman, N., on Lighting Conditions in Mines, and Miners' Eyesight	96	G			
Blok, A., on Portable Cinema Outfits	185	Gamble, C. W., on Projection Screens for Cinema Work	194		
Bragdon, E. L., on Opportunities for the Illuminating Engineer in the Cinema Industry	230	Gardner, Prof. W. N., on Lamps for Colour Matching	49		
Buchanan, Dr. L., on Lighting Conditions in Mines, and Miners' Eyesight	102	Gariel, Prof. C. M., on Chevreul's Work on Colour	130		
Bush, W. E., on—		Garrard, Major A., on Motor Car Headlights	123		
Artificial Lighting of Churches	158	Gaster, L., on—			
Progress in Lighting	279	EDITORIALS 1, 25, 61, 109, 137, 160, 197, 221, 241, 261			
Butler, R., on the Protection of the Eye in Welding Operations	229	Church Lighting	161		
Butler, T. H., on Lighting Conditions in Mines, and Miners' Eyesight	90	Colour Matching by Natural and Artificial Light	48		
C					
Cave Brown Cave, T. R., on Motor Car Headlights	126	Industrial Lighting as an aid to Mass Production	133		
Cooper Key, Major A., on Safety Conditions and Portable Cinema Outfits	184	Illumination of Factories and Workshops	250		
Cortez-Leigh, Lt.-Col. F. A., on—		Lighting as an Aid to Safety	251		
Motor-Car Headlights	125	Lighting Conditions in Mines	96		
Church Lighting	158	Motor Car Headlights	125, 177		
Court, Sir Josiah, on Lighting Conditions in Mines, and Miners' Eyesight	98	Progress in Industrial Lighting	276		
Cridland, B., on Lighting in Mines	94	George, J., on Lighting Conditions in Mines	88		
Crowley, J. F., on Colour Matching	44	Goodenough, F. W., on—			
Cunnington, A., on Motor Car Headlights	126	The Artificial Lighting of Churches	157		
D					
DARCH, J., on—		Gas in Relation to the Housing Problem	283		
THE ARTIFICIAL LIGHTING OF CHURCHES	142, 162	Opportunities and Obligations of Public Service	285		
A Short History of Church Lighting	201	Goodwin, F. R., on Portable Cinema Outfits	184		
Davis, Dr. D. L., on Lighting Conditions in Mines, and Miners' Eyesight	88	Grills, E. R., on Colour Matching by Natural and Artificial Light	49		
Dow, J. S., on—		H			
Portable Cinema Outfits	185	Hailwood, E. A., on Lighting Conditions in Mines	85		
The Artificial Lighting of Churches	161	Haldane, J. S., on Lighting Conditions in Mines	83		
Colour Matching	54	Halvorsen, C. A. B., on Street Lighting with Low Mounted Units	211		
Dudding, B. P., on Motor Car Headlights	120	Hansen, Dr. J. E., on a Convenient Armchair Lighting Unit	165		
Dumont, H. S., on Motor Car Headlights	128	Hare, Sir Lancelot, on Motor Car Headlights	124		

A9990

P	PAGE
Harford, Dr. C. E., on Miners' Nystagmus	90
Harrison, W., on—	
The Maintenance of Lighting Systems	164
The Relation between Illumination and Output ..	213
The Standardisation of Reflectors for Industrial Lighting ..	253
Herbert, G., on Colour Matching by Natural and Artificial Light ..	44
HOWELLS, CAPT. W. A., on THE ART OF CAMOUFLAGE ..	5
I and J	
Igari, M., on Spherical Reduction Factors of Incandescent Lamps ..	278
Jennings, A. S., on Colour Matching by Natural and Artificial Light ..	44
Joel, H. F., on Lighting Conditions in Mines ..	102, 216
K	
Kendall, J. Murray, on The Art of Camouflage ..	13
Kerr, Dr. J., on Portable Cinema Outfits	184
L	
Lamplough, F. E., on Colour Matching by Natural and Artificial Light ..	46
Langlands, S. B., on The Gas Regulation Act ..	232
Langton Cole, W. R., on Church Lighting ..	160
Little, W. E., on Automobile Headlight Regulations ..	129
LLEWELLYN, T. L., on LIGHTING CONDITIONS IN MINES WITH SPECIAL REFERENCE TO MINERS' EYESIGHT ..	67, 106
Lessing, Dr. R., on Colour Matching by Natural and Artificial Light ..	48
Luckiesh, M., on—	
The Visibility of Aeroplanes and Objects seen from above ..	14
Colour Matching by Natural and Artificial Light ..	51
Artistic Aspects of Domestic Lighting ..	234
M	
Macbeth, N., on Colour Matching by Natural and Artificial Light ..	54
MARTIN, L. C., on COLOUR MATCHING BY NATURAL AND ARTIFICIAL LIGHT ..	31
Moore, Capt. E. H., on The Art of Camouflage ..	13
Moore, D. McFarlan, on Gaseous Conduction Light from Low Voltage Circuits ..	225
Murphy, F. H., on The Industrial Lighting Code of Oregon ..	273
N	
Nettleton, S., on Lighting in Mines ..	98
Newton, F., on Motor Car Headlights ..	124
O	
Oday, A. B., on Street Lighting with Low-Mounted Units ..	211
P	
Paracott, A. E., on Motor Car Headlights	126
Parsons, J. Herbert, on Lighting Conditions in Mines, and Miners' Eyesight ..	96
Pass, V. V., on Miners' Lamps ..	91
Paterson, D., on Colour Matching by Natural and Artificial Light ..	51
Percival, C. S., on Lighting Conditions in Mines, and Miners' Eyesight ..	100
Pooley, G. H., on Lighting Conditions in Mines, and Miners' Eyesight ..	93
R	
Ridley, E., on Portable Cinema Outfits ..	185
Ritchie, T. E., on Church Lighting ..	158
Roberts, A. L., on Portable Cinema Outfits ..	186
S	
Salsbury, H., on Motor Car Headlights ..	123
Sayer, Miss E., on Lighting Conditions in Mines, and Miners' Eyesight ..	94
Sharp, C. H., on Automobile Headlights Regulations ..	129
Shepherd, C. H., on Records of Lamps used in Parks ..	18
Sheringham, G., on Colour Matching by Natural and Artificial Light ..	47
Shufflebotham, F., on Lighting Conditions in Mines ..	84
Stassen, Dr. M., on the Influence of Lighting on the Eyesight of Workers in Coal and Metalliferous Mines ..	103
Stroud, Capt. E., on Motor Car Headlights ..	118
Sutcliffe, J. H., on the Use of Artificial Daylight in making artificial eyes ..	45
T	
Taylor, A. H., on The Measurement of Coefficients of Diffuse Reflection ..	265
Thompson, H. H., on Motor Car Headlights ..	126
Trotter, A. P., on—	
The Art of Camouflage ..	13
Colour Matching by Natural and Artificial Light ..	46
Tye, L. M., on Motor Car Headlights ..	125
W	
Wallace, W., on Colour Matching by Natural and Artificial Light ..	45
WALSH, J. W. T., on MOTOR CAR HEADLIGHTS IN RELATION TO TRAFFIC REQUIREMENTS ..	114, 128
Welch, A. P., on Lighting Conditions in Mines, and Miners' Eyesight ..	96
Whitehead, A. L., on Lighting Conditions in Mines, and Miners' Eyesight ..	96
Wilkinson, N., on The Dazzle-Painting of Ships ..	16
Wilson, Dr. J. A., on Lighting Conditions in Mines, and Miners' Eyesight ..	101
Worsnop, C. H., on Motor Car Headlights ..	127
Wyatt, A. W., on—	
The Art of Camouflage ..	13
Motor Car Headlights ..	127

SUBJECT INDEX.

A

	PAGE
Architectural Features as an Aid to Lighting (Editorial)	199
Armchair Lighting Fittings, A Convenient Form of	165
Artificial Daylight	54
Artificial Sky Stage Lighting	233
Automobile Headlight Regulations	129, 163

B

Blindness, Committee for Prevention of British Industrial "Safety First" Association, The	248, 24, 235, 251, 290
---	------------------------

C

Calorific Value of Gas, and the Efficiency of Gas Burners	252, 285
CAMOUFLAGE, THE ART OF, by CAPTAIN A. W. HOWELLS	5
Camouflage, The Art of (Editorial)	4
CHURCHES, THE ARTIFICIAL LIGHTING OF, by J. DARCH	142
Church Lighting, A Short History of, by J. Darch	201
Church Lighting (Editorials)	137, 200
Church Lighting, An Interesting Installation	277
CINEMA PORTABLE OUTFITS, RECENT DEVELOPMENTS IN, by CAPTAIN J. W. BARBER	179
Cinema, Portable Types of (Editorial)	171
Cinema Projection Screens	194
Cinema, Use of, for Teaching Citizenship	188
Cinema Theatres, Eyestrain in	172, 189
Coefficients of Diffuse Reflection, Measurement of	214, 263, 265
Colour, Apparatus for the Analysis and Study of (Editorial)	27
Colour, Chevreul's Work on	130
COLOUR MATCHING BY NATURAL AND ARTIFICIAL LIGHT, by L. C. MARTIN	31
Colour Matching (Editorial)	25
CORRESPONDENCE:—	
Lighting Conditions in Mines	215
The Artificial Lighting of Churches	217
Czecho-Slovakia, A Visit to (Editorial)	140

D

Dazzle-Painting of Ships, The	16
Department of Scientific and Industrial Research, The	24, 59, 218, 235, 255, 259, 296
Domestic Lighting, Artistic Aspects of	234
Domestic Supplies, Distribution pressures for	256

	PAGE
EDITORIALS, by L. GASTER	1, 25, 61, 109, 137, 171, 197, 221, 241, 261
Electricity, Use of, in Gas Works	286
Eyesight of Printers, The Care of (Editorial)	28
EYESTRAIN IN CINEMAS, REPORT OF THE JOINT COMMITTEE ON	189
Eyestrain in Cinemas (Editorial)	172

E

	PAGE
Factories, Annual Report of H.M. Chief Inspector of	249
Factories and Workshops, Artificial Illumination of	250
Factory Lighting, Home Office Departmental Committee on	276
Factory Lighting, Code for Oregon	273

F

Factories, Annual Report of H.M. Chief Inspector of	249
Factories and Workshops, Artificial Illumination of	250
Factory Lighting, Home Office Departmental Committee on	276
Factory Lighting, Code for Oregon	273

G

Gas, Influence of Quality of, on Burners	252, 285
Gas in relation to the Housing Problem	283
Gas Showrooms, The Design of	285
Gas Companies, The Obligations of	285
Gaseous Conductors as Sources of Light (Editorial)	223
Gaseous Conduction Light from Low Voltage Circuits, by D. McFarlan Moore	225
Gas-Filled ("Half-Watt") Lamps, Tests of	233
Gas-Filled ("Half-Watt") Lamps with Opal Bulbs	230
Gas Fittings in New Houses	282
Gas Lighting of a Boot Factory, The	293
Gas Lighting in Westminster	294
Gas Lighting on an L.C.C. Estate	284
Gas Mains, Method of Illuminating Interior of	231
Gas Regulation Act, The	232
Glare, Minimum Value of, in Interior Lighting	275
Glare, Measurement of	229
Glasgow Lighting Association, The	108, 178
Glassblowing Works, The Use of Green Light in	282
Glass Top Metal Reflectors	236

I

Illuminating Engineering Departments and Public Service (Editorial)	261
Illuminating Engineering Society (U.S.A.), Fourteenth Annual Convention	232

PAGE	PAGE
Illuminating Engineering Society	
(Founded in London, 1909)	
ACCOUNTS OF MEETINGS, AND NOTICES OF NEW MEMBERS 5, 20, 65, 113, 141, 173	
THE ART OF CAMOUFLAGE, by CAPT. W. A. HOWELLS, O.B.E.	5
COLOUR MATCHING BY NATURAL AND ARTIFICIAL LIGHT, by L. C. MARTIN	31
LIGHTING CONDITIONS IN MINES, WITH SPECIAL REFERENCE TO THE EYESIGHT OF MINERS, by DR. T. L. LLEWELLYN	67
MOTOR CAR HEADLIGHTS AND REAR- LIGHTS IN RELATION TO TRAFFIC REQUIREMENTS, by J. W. T. WALSH	114
THE ARTIFICIAL LIGHTING OF CHURCHES, by J. DARCH	142
REPORT OF THE COUNCIL FOR THE SESSION (NOV. 1919—MAY 1920)	175
RECENT DEVELOPMENTS IN TYPES OF PORTABLE CINEMA OUTFITS, by CAPT. J. W. BARBER, C.B.E.	179
REPORT OF THE JOINT COMMITTEE ON EYESTRAIN IN CINEMAS	189
Illumination and Safety	241, 251, 254
Industrial Lighting as an aid to Mass- Production	133
Industrial Lighting, A Survey of, in Fifteen States	131
Industrial Lighting Code for Oregon, U.S.A., The	273
Industrial Lighting in relation to Efficiency (Editorial)	64
Industrial Lighting, Progress in	275
Industrial Lighting, Statistics on (Edi- torials)	112, 197
Industrial Lighting, Standardisation of	264
Industrial Lighting, Reflectors for	253
Industrial Machinery, Special Problems in the Lighting of (Editorial)	221
Interior Lighting, Standards for	275
Institute of Physics, Foundation of a	134
L	
L.C.C. Estate, The Lighting of a	281
Lighting, Cost of, in relation to Output	231
Lighting in relation to Health and Safety (Editorial)	241
Lighting, Progress in	279
M	
Maintenance of Lighting Systems, The	164, 284
Manchester University, Appeal for Funds	134
Mercury Vapour Lamp for Alternating Current, A	195
Mines, Illumination of, and Miners' Eyesight (Editorial)	62
MINES, LIGHTING CONDITIONS IN, WITH SPECIAL REFERENCE TO MINERS' EYESIGHT, by T. L. LLEWELLYN	67, 106
N	
MOTOR CAR HEADLIGHTS IN RELATION TO TRAFFIC REQUIREMENTS, by J. W. T. WALSH	114
Motor Car Headlights and Traffic (Edi- torial)	109
N	
National Illumination Committee, The	174
National Physical Laboratory, Report for 1919	212
National Physical Laboratory, Arrange- ments for Volumetric Testing at	24
Nela Research Laboratory, Reorganisation of	231
Neon Lamps, Low Voltage Types of	228
O	
OBITUARIES :—	
Comm. Ing. L. Pontiggia	30
Mr. G. M. Light	163
Dr. W. P. Nuel	248
Optical Test-charts, Standard Methods of Lighting	250
Oregon, Industrial Lighting Code for	273
Output and Illumination, Relation between	213
Output by Natural and Artificial Light in the silk weaving Industry	245
P	
Paint, Diffusion of Light by	21
Parks, Records of Lamps used in	18
Personal Notes	66, 163, 290
Physical and Optical Societies, Annual Ex- hibition	17
Prague and Czecho-Slovakia, Some Im- pressions of	210
Progress in Lighting during 1919 (Editorial)	1
Public Service, the Opportunities and Obligations of	285
Pulpit Lighting in Churches	155
R	
Radiation from a Perfectly Diffusing Disc	252
Reflection Coefficients, Testing of	214, 263, 265
REVIEWS OF BOOKS AND PUBLICATIONS RECEIVED	22, 60, 168, 217, 239
Rotating Arc for Optical Projection, A	214
Royal Institute of Public Health, Brussels Congress (Editorial)	139
Royal Sanitary Institute, Thirty-first Congress	178
Royal Society of Arts, Programme of Lectures for Session	272
S	
“Safety First” Congress, The First	251
Scientific and Industrial Research (Edi- torial)	244

SUBJECT INDEX OF VOL. XIII.

7

PAGE	PAGE		
Searchlight Mechanisms, Recent Progress in	228	T	
Self-Cleaning Lighting Fixture, A	234	Time-Tables at Railway Stations, Illumination of	272
Sheringham Daylight, The	37	TOPICAL AND INDUSTRIAL SECTION 19, 135, 166, 196, 219, 236, 257, 287	
Silk Weaving Industry, Illumination and Output in (Editorial)	243		
Silk Weaving Industry, Output in by Natural and Artificial Light	245		
Silent Aerated Flames	286	U	
Slough Motor-Repairing Depot, Lighting of	287	Ultraviolet Light, Use of, in Treating Diseases of the Eye	272
Specular Reflection from Rough Surfaces	18		
Spherical Reduction Factors of Incandescent Lamps	278	V	
Squares and Public Places, The Lighting of	224	Visibility of Aeroplanes, and of Objects Viewed from Above, The	14
Standard Surfaces of Graded Reflecting Power	268	Visibility of Radiation, The	278
Standardisation of Reflectors for Industrial Lighting	253	W	
Standards for Industrial Lighting	275	Waterloo Station, Recent Developments in Lighting at	270
Street Lighting in the West End	294	Welding Operations, Protection of the Eyes in	229
Street-Lighting and Motor Traffic (Editorial)	111	Wisconsin, Regulations for Motor-car Headlights	163
Street Lighting with Low-Mounted Units	211		

NOTICE.

Owing to the great demand for Back Numbers, the cost of Vols. I.—XIII. will in future, and until further notice, be **20s.** UNBOUND, and **25s.** BOUND, to NON-SUBSCRIBERS.

YEARLY SUBSCRIBERS and MEMBERS of the ILLUMINATING ENGINEERING SOCIETY, however, can obtain these volumes at a cost of **17s. 6d.** UNBOUND, and **20s.** BOUND.

Special Cases for Vols. I.—XIII. of "THE ILLUMINATING ENGINEER" will be supplied at a cost of **4s.** each by

THE ILLUMINATING ENGINEERING PUBLISHING CO., LTD.,

32, Victoria Street, London, S.W.1.

VACHER & SONS, LTD.
Westminster House,
Great Smith Street,
S.W.1.—86281.

